PATENT CLAIMS

1. Rolling bearing comprising two co-axially arranged bodies (3, 2; 14, 15; 28, 29; 40, 45; and 54, 58), one of these being disposed outside the other, the two bodies having two opposing surfaces between which there are arranged a number of rotatable units (6, 17, 30, 42 and 60) such as balls or rollers. Said opposing surfaces have grooves, the units being retained in the grooves of the two opposing surfaces of the two bodies. At least one of these bodies is formed of a helical spring that has the character of a sleeve and is so wound that a grooved section (4, 16, 22, 32, 41, 48 and 57) results. Furthermore, the helical spring is so dimensioned that it takes up the forces exerted by the units, the possibility being provided to subject the spring to axial forces allowing the rotatable units to be introduced into the helical spring between two of its windings. The whole being characterised by the surface in a groove that interacts with a rotatable unit being so shaped that up to maximum possible contact is obtained between the unit's outer surface and the corresponding outer surface of the groove.

2. Rolling bearing as per patent claim 1, characterised by the groove's outer surface being given its operational shape by a rotatable unit, said unit being capable of replacement by a unit having a circumference corresponding to the circumference imparted to the groove.

3. Rolling bearing as per patent claim 1, characterised by the sleeve formed from the helical spring being given a mechanical tensioning that acts to contract the spring so that the width expansion occasioned by the surface attrition exerted by the rotatable unit is compensated for.

4. Rolling bearing as per patent claim 1, characterised by the groove shape being obtained by the pre-treatment (e.g. rolling) of the wire before the manufacture of the sleeve.

5. Rolling bearing as per patent claim 1, characterised by a sleeve with one or more grooves being given the required starting shape by a grinding process.

6. Rolling bearing as per patent claim 1, characterised by the wire having the following strength properties...

7. Rolling bearing as per patent claim 1, characterised by the wire having different degrees of hardness inwards from the outside.

8. Rolling bearing as per patent claim 1, formed by two sleeves each having its associated groove, characterised by a device or arrangement that holds the two sleeves with rotatable units together so that a single product unit is created.